



PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days
PO038929	MEC002-VU	1	1	Net 30	M7075T73B4.000x4.000	7075-T73 Bar 4.0 X 4.0 Grain Direction Along 4" Wide : MATERIAL: 7075-T73 OR 7075-T7351/T73510/T73511 BAR PER AMS-QQ-A-200/11 OR AMS-QQ-A-225/9 OR AMS 4124 OR AMS-QQ-A-250/12 OR AMS 4078 receive ft				48	2/26/2018	48		S043346	Stock	2/16/2018	\$ 107.58 / ft	0
		6			M7075T6S7.000X2.000	7075-T6S Sheet 7" Thick Plate X 2" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						45		S043347	Stock	2/16/2018	\$ 78.52 / ft	0
		11			M7075T6S1.000X2.500	7075-T6S Sheet 1" Thick Plate X 2.5" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				12		12		S043348	Stock	2/16/2018	\$ 30.42 / ft	0
										Total:	108			105				

Plex 2/16/2018 2:28 PM Dart.Dubois.Pascal



A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3511510

Ship From:	Sold To:	Ship To:	Deliver To:				
A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN CA				
Date Shipped	F.O.B.	Freight Terms	Carrier				
13-FEB-18	ORIGIN	Prepaid	XPO LOGISTICS FREIGHT				
Shipment Details			Final Destination Branch - WIE				
Order No	Line No	Item No	Description				
5033934	3	752188.MO	1.0000,PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 2.5 IN (+ .1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com				
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
38929		1.00 PCS	1.00 PCS				
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121625932	KAISER ALUMINUM	 705435B6	1				37.6174

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.



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A. M. Castle & Co.

Reviewed by Authorized Castle Metals Representative:

M. Lopez
M. Lopez
Date: 12/10/2017
Name: M. Lopez
Title: Sales Rep
Phone: 404-243-1234
Fax: 404-243-1234

Page 2 of 2



PACKING SLIP/
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

1000 N HAROLD DR
WICHITA, KS 67216
USA

Page 1 of 2

Shipment No:3511510

Ship From:		Sold To:		Ship To:		Deliver To:	
A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No:		BOL No:	
13-FEB-18	ORIGIN	Prepaid	XPO LOGISTICS FREIGHT	3511510-2			
Shipment Details		Final Destination Branch - WIE					
Order No	Line No	Item No	Description	Ordered Qty		Invoice Qty	
5033934	1	750616.MO	2.0000.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 7 IN (+ .1250/- .0000 IN) X 107 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com	5.00 PCS		5.00 PCS	
Purchase Order No		Part Number					
38929							
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Delivery No.	Mill/Source	Heat-Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121625932	CONSTELLIUM ROLLED PRODUCTS	9 3 8 5 0 6	5				773.1274

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A. M. Castle & Co.

Reviewed by Authorized Castle Metals Representative:

Anthony L. Hayes
L40 K3

Page 2 of 2

GROSSPACE

Date: Name:



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Ship From:		Sold To:		Ship To:		Deliver To:	
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier				
15-FEB-18	ORIGIN	Prepaid	MANITOULIN				
Shipment Details				Final Destination Branch - TOR			
Order No	Line No	Item No	Description				
5033877	1	752132.MO	4.0000.PL.7075.T7351.ALUMINUM USI 48.5000.144.5000 CUT 2SIDED TO 48.5 IN ((GRAIN TO RUN ALONG 4")) X 4 IN (+ .1250/. 0000 IN (GRAIN TO RUN ALONG 4")) - ALUMINUM PLATE				
Purchase Order No	Part Number			Ordered Qty	Invoice Qty		
38929				12.00 PCS	12.00 PCS		
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dataero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS						
Delivery No	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121623367	KAISER ALUMINUM	[REDACTED]	2				160.8277
121623367	KAISER ALUMINUM	[REDACTED]	10				804.1384

24038646



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A. M. Castle & Co.

Page 2 of 2

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Reviewed by Authorized Castle Metals Representative

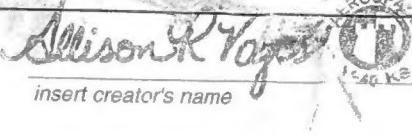
Date: _____

FEB 15 2010



<p>STRAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE</p> <p>RECEIVED, Subject to the classification and tariffs in effect on the date of issue of this Bill of Lading. The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.</p>				Shipper No.: 3511510-2
				FROM AT: A. M. Castle & Co. 3050 S HYDRAULIC WICHITA KS 67216 USA
				Ship Date: 13-FEB-18
Consigned To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY ON K6A 1K7 CAN	Delivery Instructions: ALL LOADS MUST BE TARPED. DELIVER PACKING LIST AND TEST REPORTS OR CONSIGNEE WILL REFUSE.			Payment Terms: Prepaid REMIT FREIGHT INVOICES TO: RayTrans Management, Inc. PO Box 1210 Washington PA 15301
Carrier Name: XPO LOGISTICS FREIGHT	Additional Insurance Coverage: The agreed or declare value for the property is hereby specifically stated by the shipper to be not exceeding: per _____			
Shipment Breakdown:				Shipment Weights:
Quantity 1	Packaging SKID	Class 50	Commodity Metal Product	Product 811 LBS Dunnage 43 LBS Gross 854 LBS
ORDER DETAIL:				
Customer PO 38929	Sales Order No. 5033934	Line No. 3	Castle Item No. 5033934*3*1	Quantity Shipped 1
Customer PO 38929	Sales Order No. 5033934	Line No. 1	Castle Item No. 5033934*1*1	Quantity Shipped 5
Subject to Section 7 of Conditions of applicable bill of Lading. If this shipment is to be delivered to the consignee without recourse to the consignor, the consignor shall sign the following statements. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.				If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight." NOTE: Where the rate is dependent on value, the shippers are required to state specifically in writing the agreed or declared value of the property.
THIS SHIPMENT IS TO BE TENDER RECEIVED AND TO BE CARRIED SUBJECT TO ALL TERMS AND CONDITIONS OF THE STEAMSHIP COMPANIES CURRENT FORM BILL OF LADING				The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding
THIS IS TO CERTIFY THAT THE ABOVE NAMED ARTICLES ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.				Customer is responsible for all shipping documents and compliance with United States and Canadian laws, including but not limited to U.S. and Canadian Export laws and regulations.
SHIPPER, PER: <i>Allison R Hayes</i> insert creator's name				Shipper No.: 3511510-2 Per _____ Driver's Signature _____ Name _____ Please Print Name Here _____
PROOF OF DELIVERY: Signature / Date				Date _____ All pages must be signed Page 1 of 1

1 SKID @ 120 x 36 x 7
1 TUBE @ 150 x 4 x 4

STRAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE				Shipper No.:	3511510-2																		
RECEIVED, Subject to the classification and tariffs in effect on the date of issue of this Bill of Lading The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.				FROM AT:	A. M. Castle & Co. 3050 S HYDRAULIC WICHITA KS 67216 USA																		
				Ship Date:	13-FEB-18																		
Consigned To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY ON K6A 1K7 CAN		Delivery instructions: ALL LOADS MUST BE TARPED. DELIVER PACKING LIST AND TEST REPORTS OR CONSIGNEE WILL REFUSE.		Payment Terms: Prepaid REMIT FREIGHT INVOICES TO: RayTrans Management, Inc. PO Box 1210 Washington PA 15301																			
Carrier Name: XPO LOGISTICS FREIGHT		Additional Insurance Coverage: The agreed or declare value for the property is hereby specifically stated by the shipper to be not exceeding: _____ per _____																					
Shipment Breakdown: <table border="1"> <tr> <th>Quantity</th> <th>Packaging</th> <th>Class</th> <th>Commodity</th> </tr> <tr> <td>1</td> <td>SKID</td> <td>50</td> <td>Metal Product</td> </tr> <tr> <td>1</td> <td>TUBE</td> <td>50</td> <td>Metal Product</td> </tr> </table>						Quantity	Packaging	Class	Commodity	1	SKID	50	Metal Product	1	TUBE	50	Metal Product						
Quantity	Packaging	Class	Commodity																				
1	SKID	50	Metal Product																				
1	TUBE	50	Metal Product																				
ORDER DETAIL: <table border="1"> <tr> <th>Customer PO</th> <th>Sales Order No.</th> <th>Line No.</th> <th>Castle Item No.</th> <th>Quantity Shipped</th> <th>Castle Unit</th> </tr> <tr> <td>38929</td> <td>5033934</td> <td>3</td> <td>5033934*3*1</td> <td>1</td> <td>PCS</td> </tr> <tr> <td>38929</td> <td>5033934</td> <td>1</td> <td>5033934*1*1</td> <td>5</td> <td>PCS</td> </tr> </table>						Customer PO	Sales Order No.	Line No.	Castle Item No.	Quantity Shipped	Castle Unit	38929	5033934	3	5033934*3*1	1	PCS	38929	5033934	1	5033934*1*1	5	PCS
Customer PO	Sales Order No.	Line No.	Castle Item No.	Quantity Shipped	Castle Unit																		
38929	5033934	3	5033934*3*1	1	PCS																		
38929	5033934	1	5033934*1*1	5	PCS																		
Subject to Section 7 of Conditions of applicable bill of Lading. If this shipment is to be delivered to the consignee without recourse to the consignor, the consignor shall sign the following statements. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.			If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight." NOTE: Where the rate is dependent on value, the shippers are required to state specifically in writing the agreed declared value of the property.																				
THIS SHIPMENT IS TO BE TENDER RECEIVED AND TO BE CARRIED SUBJECT TO ALL TERMS AND CONDITIONS OF THE STEAMSHIP COMPANIES CURRENT FORM BILL OF LADING			The agreed or declared value of the property is hereby specifically stated by the shipper not exceeding _____																				
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SHIPPER, PER:  insert creator's name		Per _____ Driver's Signature _____ Name _____ Please Print Name Here _____ All pages must be signed Page 1 of 1																					
PROOF OF DELIVERY: Signature / Date _____																							

1 Skid @ 120 x 36 x 7

1 Tube @ 150 x 4 x 4



Castle Metals®

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 2

Shipment No:3511510

Ship From:	Sold To:	Ship To:	Deliver To:
A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA

Date Shipped	F.O.B.	Freight Terms	Carrier
13-FEB-18	ORIGIN	Prepaid	XPO LOGISTICS FREIGHT

Shipment Details

Final Destination Branch - WIE

Order No	Line No	Item No	Description
5033934	1	750616.MO	2.0000.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 7 IN (+ .1250/- .0000 IN) X 107 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com

Purchase Order No **Part Number**

38929 Ordered Qty
5.00 PCS Invoice Qty
5.00 PCS

Details

ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S

Email P/s and certs to: clavoie@dartaero.com

END USER: DART AEROSPACE

END USE: COMMERCIAL AIRCRAFT PARTS

Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (in)	Length (in)	Shipped Qty(LBS)
121625932	CONSTELLIUM ROLLED PRODUCTS			5			773.1274

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Date Printed: 13-FEB-2018 02:44:47 PM

11a. AUTHORIZED SIGNATURE 		11c. NAME Alan M. Castle	
11b. COMPANY A. M. Castle & Co.		11c. VOICES	
11d. TITLE OPERATIONS		11e. DATE (mm/dd/yy)	
11f. TELEPHONE NUMBERS 11g. EMAIL avoges@amcastle.com		(800) 373-7736 (Voice)	(Facsimile)
11h. CBP Form 441 (11-04)			

11i. CERTIFY THAT:

- The information on this document is true and accurate and I assume responsibility for providing such representations. I understand that I am liable for any false statements or material omissions made on or in connection with this document;
- I agree to maintain and present upon request, documentation necessary to support this certification, and to inform, in writing, all persons to whom the certificate was given of any changes that would affect the accuracy or validity of this certificate;
- The goods originated in the territory of one or more of the parties, and comply with the origin requirements specified for those goods in the North American Free Trade Agreement or Article 41 or Annex 401, where has been no further production or assembly performed outside the territories of the parties, and unless specifically exempted in Article 41 or Annex 401, there has been no further production or assembly performed outside the territories of the parties; and
- This certificate consists of 1 pages, including all attachments.

5. DESCRIPTION OF GOOD(S)	6. H.S. TARIFF	7. PREFERENCE CLASSIFICATION NO.	8. PRODUCER	9. NEI COST	10. ORIGIN	11. COUNT OF	12. NO2	13. NO	14. US
750616.MO 2,000.00 PL.7075.T651 ALUMINUM USA 48 5000 144 5000 (Hearl-9388506)	760612	B	HAWKESBURY, ON K6A 1K7 CA						
752188.MO 1,000.00 PL.7075.T651 ALUMINUM USA 48 5000 144 5000 (Hearl-70543586)	760612	B	DART ALFROSPACE LTD 1270 ABERDEEN						

1. EXPORTER NAME, ADDRESS AND MAIL		3. PRODUCER NAME, ADDRESS AND MAIL	
A. M. Castle & Co. 1420 Kenmigian Road, Suite 220 Oak Brook, IL 60523 USA		TAX IDENTIFICATION NUMBER: Available Upon Customs Request	
ONE TIME SHIPMENT		TAX IDENTIFICATION NUMBER: 36-0879160	
FROM (mm/dd/yyyy)		TO (mm/dd/yyyy)	
2. BLANKET PERIOD		3. PRODUCER NAME, ADDRESS AND MAIL	
19 CFR 181.11, 181.22 Shipment# 3511510		4. IMPORTER NAME, ADDRESS AND MAIL	
A. M. Castle & Co. 1420 Kenmigian Road, Suite 220 Oak Brook, IL 60523 USA		TAX IDENTIFICATION NUMBER: 36-0879160	

5. CERTIFICATE OF ORIGIN	
NORTH AMERICAN FREE TRADE AGREEMENT	
U.S. Customs and Border Protection Exp. 04-30-2020	
DEPARTMENT OF HOMELAND SECURITY OMB No. 1651-0098	



Castle Metals®

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 2

Ship From:

A. M. CASTLE & CO.
3050 S HYDRAULIC
WICHITA, KS 67216
USA

HAWKESBURY, ON K6A 1K7
CA

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON
K6A 1K7 CAN

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON
K6A 1K7 CA

Sold To:

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON
K6A 1K7 CAN

Ship To:

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON
K6A 1K7 CA

Deliver To:

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON
K6A 1K7 CA

Shipment No:3511510

Date Shipped F.O.B. Freight Terms Carrier

13-FEB-18 ORIGIN Prepaid

XPO LOGISTICS FREIGHT

BOL No

3511510-2

Shipment Details

Final Destination Branch - WIE

Order No	Line No	Item No	Description				
5033934	3	752188.MO	1.0000 PL.7075.T651.ALUMINUM.USI:48.5000.144.5000 CUT 2SIDED TO 2.5 IN (+ .1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com				
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
38929		1.00 PCS	1.00 PCS				
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Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
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A. M. Castle & Co.

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Page 2 of 2

Reviewed by Authorized Castle Metals Representative:

John D. Hayes



Date: Name:

These items are controlled by the U.S. Government and authorized release or export to any other person or entity in the County of ultimate destination for use by the ultimate consignee of end-users(s) herein defined. They may not be resold, transferred or otherwise disposed of to any other person or entity in the County of ultimate destination for end-users(s), either in their original form or after being modified in any manner, without prior authorization by U.S. law and regulations.



A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

Reviewed by Authorized Castle Metals Representative:

John J. Hayes



Date: Name:

L-40 L-3

11c. NAME <i>Allison Voges</i>	11d. TITLE <i>Division Manager</i>	11e. DATE (mm/dd/yyyy) 02/13/2018	11f. TELEPHONE NUMBERS (800) 373-7736 (Voice) avoges@amcastle.com (Facsimile)
11g. EMAIL 11h. COMPANY A. M. Castle & Co.		11i. OPERATIONS	11j. TELEPHONE NUMBER (800) 373-7736 (Voice) avoges@amcastle.com (Facsimile)
<p>11k. AUTHORIZED SIGNATURE <i>Allison Voges</i></p> <p>I certify that: • The information on this document is true and accurate and I assume responsibility for providing such presentations. I understand that I am liable for any false statements or material omissions made on or in connection with this document. • I agree to maintain and present upon request, documentation necessary to support this certificate, and to inform, in writing, all persons to whom the certificate was given of any changes that would affect the accuracy of validity of this certificate. • The goods originated in the territory of one or more of the parties and comply with the origin requirements specified for those goods in the North American Free Trade Agreement, and unless specifically exempted in Article 41 or Annex 401, there has been no further production or assembly outside the territories of the parties; and • This certificate consists of 1 pages, including all attachments.</p>			

Description of Good(s)									
750616 MO	2 0000.PL 7075 T651 ALUMINUM USI 48 5000 144 5000	760612	760612	760612	760612	B	B	No2	No2
(Hearl-705435B6) (Hearl-9388506)									
10. Country of Origin 11. Producer 12. Net Cost 13. Classification No 14. Reference 15. H.S. Tariff									

1. EXPORTER NAME, ADDRESS AND EMAIL A. M. Castle & Co. 1420 Kensington Road, Suite 220 Oak Brook, IL 60523 USA	2. BLANKET PERIOD From (mm/dd/yyyy) To (mm/dd/yyyy)	3. PRODUCER NAME, ADDRESS AND EMAIL TAX IDENTIFICATION NUMBER 4. IMPORTER NAME, ADDRESS AND EMAIL DART AEROSPACE LTD 1220 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
5. ONE TIME SHIPMENT TAX IDENTIFICATION NUMBER Available Upon Customs Request		

NORTH AMERICAN FREE TRADE AGREEMENT CERTIFICATE OF ORIGIN

U.S. Customs and Border Protection
OMB No. 1651-0098
DEPARTMENT OF HOMELAND SECURITY
19 CFR 181.11, 181.22
Shipment# 3511510
Exp. 04-30-2020

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s), either in their original form or after being incorporated into goods, regardless of otherwise disposed of, to any other country or to any person other than the ultimate consignee or end-user(s). It is a violation of law to export these items without prior approval from the U.S. Government.

Packing Info:					
Qty	Packaging Description	Net Weight	Tare Weight	Gross Weight	
1	TUBE 150 X 4 X 4 SKID 120 X 36 X 7	773 LBS	33 LBS	38 LBS 806 LBS	10 LBS 48 LBS

other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

Commercial Invoice Summary

A. M. Castle & Co. (Canada) Inc.

Castile Metals

Delivery Nbr: 121625932

3511510-2

5033934-1-3511510-2
5033934-3-3511510-2

Summary

A.M. Castle & Co. hereby certify this invoice to be true and correct in all particulars
Signature

Combined Income Total:	3,865.72	Total Extended Line Amount:	3,865.72
Total Tax Amount:	502.54	Total Extended Line Amount:	3,865.72
Grand Total:	4,368.26	Total Extended Line Amount:	3,865.72

Number:	5033934-1-3511510-2
BOL Number:	5033934-3-3511510-2
Delivery Nbr:	121625932

these items without prior approval from the U.S. government authority or any other person other than the individualized by U.S. law and regulations, regardless of the circumstances of end-use(s), except in their original form or after being incorporated into other items without prior approval from the U.S. government authority or any other person other than the individualized by U.S. law and regulations.

GOMMERCIAL INNOVIGE **Castile Metals**

COMMERCIAL INVOICE

Castile Metals

8

WICHITA KS 67216 USA

Order No. 5033934

9

1270 ABERDEEN
HAWKESBURY, ON K6A

— *Final Update* | *Page 1*

Order #: 50339341

Item Description

Process Description

Heat Number

Specifications:

CHM202-BMW-51

[View all posts by admin](#)

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13 February 2018 15:15:2

Without first obtaining approval from the U.S. Government or to any other country or to any other person who, in the opinion of the ultimate consignee or end user, could interfere with the delivery of the equipment, no sale by the manufacturer for use by the ultimate consignee or end user of this equipment shall be made.

COMMERCIAL INVOICE		Castle Metals	
Ship From: A.M. Castle & Co. (Canada) Inc.		Remit To: A.M. CASTLE & CO. (CANADA) INC.	
Number: 5033934-3-3511510-2		Delivery Number: DEPT 410079 PO BOX 4375 STN A TORONTO, ON M5W 0J3	
Shipping Mark:		Due Date: 13-FEB-2018	
SOLD TO:		SHIP TO	
DART AEROSPACE LTD		DART AEROSPACE LTD	
1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CANADA		1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CANADA	
DART AEROSPACE LTD		VAT:	
Contract No.: BOL #: 3511510-2		Freight/Via: XPO LOGISTICS FREIGHT	
Order Information		Freight/INCO Terms: Paid HAWKESBURY ON K6A 1K7 Canada	
Order #: 5033934 Line #: 38929		Order #: 5033934 Line #: 38929	
Purchaser Order #: 38929		Net Shipped Weight:	
Item #: 752188.MO		Shipped Qty:	
Cuttering Description: 1.0000.PL_7075.T651.ALUMINUM USI 48.5000.144.5000		Unit Price:	
Cutting Description: CUT 2SIDED TO 2.5 IN (+ .1250/.0000 IN) X 144.5 IN ()		365.04 / PCS	
Process Description: - ALUMINUM PLATE SAW		365.04	
Heat Number		Country of Origin	
705435B6		7606123030	
Specification: AMS-QA-A-250/12		Email/P/S and certs to: claviole@datatec.com	
Line Total:		Invoice Total:	
365.04		4745	
4745		41249	

13 February 2018 15:15:25 PM

Page 3 of 4

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Other elements within this document are otherwise authorized by U.S. Government or as otherwise authorized by law and regulations.

Commercial Invoice Summary	
Number:	5033934-1-3511510-2
BOL Number:	3511510-2
Delivery Nbr:	121625932
AM. Castle & Co. (Canada) Inc.	
Castle Metals	
Commercial Invoice Total:	4,368.26
Total Extended Line Amount	3,865.72
Total Tax Amount	502.54
Grand Total	
AM. Castle & Co. hereby certify this invoice to be true and correct in all particulars	
Signature	

13 February 2018 15:15:25 PM

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, whether lawfully or unlawfully, or otherwise disposed of.

QTY	Packaging Description	Net Weight	Tare Weight	Gross Weight
1	SKID 120 X 36 X 7	773 LBS	33 LBS	806 LBS
	TUBE 150 X 4 X 4	38 LBS	10 LBS	48 LBS



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038929

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W 0E9 Canada

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO038929

PO Date: 2/1/18

Due Date: 2/26/18

Purchase Order Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
FEB 02 2018

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T73B4.000x4.000		7075-T73 Bar 4.0 X 4.0 Grain Direction Along 4" Wide : MATERIAL: 7075-T73 OR 7075- T7351/T73510/T73511 BAR PER AMS-QQ-A- 200/11 OR AMS-QQ-A- 225/9 OR AMS 4124 OR AMS-QQ-A-250/12 OR AMS 4078 receive ft	Firmed	2/26/18	48 ft	0 ft	48 ft	\$107.58333/ft	\$5,164.00
Line Item Note: 12 PCS CUT AT 4 FT LONG										
2	M17-4-H1150-R4.000		17-4 SS H1150 Round Bar 4.000" : MATERIAL: 17-4 PH CONDITION H1150 receive ft	Firmed	2/26/18	6 ft	0 ft	6 ft	\$145.75/ft	\$874.50
3	M7075T6S1.000X5.000		7075-T6 Sheet1" Thick Plate X 5" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft	12 ft	\$21.75/ft	\$261.00
4	M7075T6S1.250X2.750		M7075T6S1.250" X2.750" Cut From Plate : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft	12 ft	\$34.30/ft	\$411.60

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5	M7075T6S6.000X0.250		7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	36 ft	0 ft	36 ft	\$20.75/ft	\$747.00
6	M7075T6S7.000X2.000		7075-T6S Sheet 7" Thick Plate X 2" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	48 ft	0 ft <i>5 Pcs x 9 45 ft</i>	48 ft <i>FEB 16 2018</i>	\$78.52/ft <i>DAS 11 9-89</i>	\$3,768.96
7	M7075T6S0.375X6.000		7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft	12 ft	\$25.68/ft	\$308.16
8	M7075T6B1.000X00.250		7075-T6 Bar 1.000" X 0.250" : MATERIAL: 7075-T6 OR T651/T6510/T6511/T62 ALUMINUM BAR AS PER AMS-QQ-A-225/9 OR AMS 4122/4123/4186/4187 OR PER AMS-QQ-A-200/11 receive ft	Firmed	2/26/18	12 ft	<i>scratches</i>	12 ft	\$9.92/ft	\$119.04
9	M7075T6S2.000X0.750		7075-T6S Sheet 2" Thick Plate X 0.75" Wide : MAT'L 7075-T6/T62 ALUMINUM SHEET SPECS QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR PER ASTM B209 MAT'L 7075-T6/T62 ALCLAD ALUMINUM SHEET SPECS QQ-A-250/13 OR AMS-QQ-A-250/13 OR AMS 4049 OR PER ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft	12 ft	\$18.47/ft	\$221.64

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
10	M7075T6S4.500X5.000		7075-T6S Sheet 4.500" Thick X 5.000" Wide : MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	6.125 ft	0 ft 9 ft 48.5 inch X 2	6 ft	\$182.19/ft	\$1,115.91
11	M7075T6S1.000X2.500		7075-T6S Sheet 1" Thick Plate X 2.5" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12 ft	12 ft	\$30.42/ft	\$365.04
12	M7075T6S1.250X2.000		7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft	12 ft	\$20.12/ft	\$241.44
13	M7075T6S0.375X5.000		M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft	12 ft	\$18.10/ft	\$217.20
										Grand Total: \$13,815.49

Order Notes

Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 part notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dart aerospace.com for further explanation.

Chantal Lavoie

From: Desbiens, Marc <mdesbien@amcastle.com>
Sent: Monday, January 22, 2018 1:34 PM
To: Chantal Lavoie
Subject: RE: quote

Good Morning Chantal,

price an delivery on mat'l.

7075t73 bar 4" x 4" x 12 ft cut in section of 4 ft grain direction along 4"
Offer plate \$ 1291.00 Lot 2-3 weeks

17-4 h1150 round bar 4" x 6 ft
\$ 145.75 FT 8-9 days

Bar or sheet acceptable

7075t6 Sheet 1" x 5" x 12 ft \$ 21.75 Ft 2-3 weeks
7075t6 sheet 1.250" x 2.750" x 12 ft \$ 34.30 Ft 2-3 weeks
7075t6 sheet 6" x 0.250" x 36 ft \$ 20.75 Ft 2-3 weeks
7075t6 sheet 7" x 2" x 48 ft \$ 78.52 Ft 2-3 weeks
7075t6 sheet 0.375" x 6" x 12 ft \$ 25.68 Ft 2-3 weeks
7075t6 sheet 1" x 0.250" x 12 ft (2 pcs 6ft) \$ 9.92 Ft 2-3 weeks
7075t6 sheet 2" x 0.750" x 12 ft \$ 18.47 Ft 2-3 weeks
7075t6 sheet 4.5" x 5" x 8 ft cut in section 4 ft 50.125" Long \$ 182.19 Ft 2-3 weeks
7075t6 sheet 1" x 2.5" x 12 ft \$ 30.42 Ft 2-3 weeks
7075t6 sheet 1.250" x 2" x 12 ft \$ 20.12 Ft 2-3 weeks
7075t6 sheet 0.375" x 5" x 12 ft \$ 18.10 Ft 2-3 weeks

D4970-041

~~303 bar 1" x 3" x 12 ft \$ 107.48 FT 2 weeks~~
~~304 bar 0.750" x 2.5" x 12 ft \$ 24.62 FT 8-9 days~~
~~304 bar 0.500" x 2.5" 12 ft \$ 19.93 FT 8-9 days~~
~~Round bar bronze 2.375" x 1 ft (63000 spec's) Regret~~

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370
Customized Supply Chain Solutions for Your Metal Needs

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70757651.000X2.500
 DATE: FEB 16 2018

PO / BATCH NO: 0389795043348

MATERIAL CERT REC'D: Y-5
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
 THICKNESS RECEIVED: 1.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y N	
CORRECT FINISH	Y N	
CORROSION	Y N	
CORRECT GRAIN DIRECTION	X N	
CORRECT MATERIAL PER M-DRAWING	Y N	Xm25-QQ-A-27C
CORRECT THICKNESS	Y N	
PHOTO REQUIRED	Y N	
CORRECT REF # TO LINK CERT	X N	Heat # 701432B6
CORRECT MATERIAL IDENTIFICATION	Y N	
CORRECT M# ON THE MATERIAL	Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 1B INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-89 FEB 16 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

OR ASTM B209

UR

PURCHASE MATERIAL: 7225 TEST STREET, VICTORIA, BRITISH COLUMBIA

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR-AMS 4049

- OK ASIM B209

M7075T6S | TTT | X | W.WWW |

WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES)

AND **W.WW** = **WIDTH** (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

.111 BY 4FT BY 10FT FOR SHEET

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7

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2017 JUN 19
ECN 17-574

APPROVED

B	ADD REF TO "PLATE: T6551 TEMPER AMS 4046, OPTIONAL WIDTH DIM (CAR16-149)		
A	NEW ISSUE		
REV.			
DESIGN	DESCRIPTION		
DRAWN	RF	BY	
DRAWN	CP	DATE	
CHECKED	ML	DRAWING NO.	
MFG. APPR.	LL	HAWKESBURY, ONTARIO, CANADA	
APPROVED	WM	M707516S	
DE APPR.	D9	REV. B	
DATE	17.05.05		
DART AEROSPACE LTD <small>HAWKESBURY, ONTARIO, CANADA</small>			
SHEET OF 1 7075-T6 SHEET/PLATE SPEC SCALE NTS THIS DOCUMENT IS PROVIDED AS INFORMATION AND CONFIDENTIAL. AND IS SUBJECT TO THE LICENSE CONCERNED. NOT TO BE USED FOR ANY OTHER PURPOSE THAN THAT FOR WHICH IT WAS PROVIDED. <small>PRINTED ON 100% RECYCLED PAPER</small>			

SHIP TO:
A M CASTLE & CO
3050 SOUTH HYDRAULIC
WICHITA, KS 67216

SOLD TO:
AM CASTLE & CO-SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

KAISER
ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4487066

CUSTOMER PO NUMBER: 435954-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 752188	SHIP RUN/LOAD: 104109/21	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1243502-1	SHIP DATE: 24-NOV-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 3602 LB	QUANTITY: 5 PCS EST.	TRUCK B/L #: 2070342	GAUGE: 1.0000 IN (25.4000 MM)	DIAMETER/MODTH: 48.500 IN (1231.9 MM)

MHU 2164380: LOT 705435B6: 5 pieces;

Certified Specifications

AMS 4045/RevL
ASTM B 209/Rev14
BSS 7055/RevB
DPS 4.713/RevAK
PS-212TT/RevP

AMS-QQ-A-250/127RevA
ASTM B 594/Rev13
CMMMP 025/RevV
GAMPS 9101/RevB/AmdSCN1

AMS-STD-2154/RevC
BAC 5439/RevJ
CSTI 006/RevE
GSS16100/RevG/Amd1

Test Code: 1512
Lot: 705435B6 Cast 540

Test Results
Drop 64 Ingot 2 Parent Lot: 243261B5 Melted in USA

(ASTM E8/B567)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	80.6 : 81.3 (556 : 561)	71.7 : 72.0 (494 : 496)	13.2 : 13.6

(ASTM E1251)

Chemistry:	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.17	1.4	0.03	2.5	0.19	5.7	0.03	0.01	0.01	TOT 0.04

ALLOY LIMITS

7075	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS
AMC CA 15403 R 8





Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4487066

TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.

CERTIFICATION

- Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and 50 14001 certified, and hereby certifies that all material shipped under this order:
- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
 - All test equipment and measuring devices are calibrated and certified in accordance with applicable specifications. For material thicknesses outside specification limits, mechanical properties and as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
 - was melted in the United States of America or a qualifying country per DFARS 225.372-11(h), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
 - has been thermally processed in compliance with AMS 2772, where applicable.
 - is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
 - is in compliance with RoHS 2, European Union Directive 2011/65/EU.
 - is in compliance with European Chemical Agency, ECMA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
 - is free of Conflict Minerals, as defined in Section 152 of the Dodd-Frank Act.
 - is free of weld repair.
 - meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 2035T-57.000X2.000
 DATE: FEB 16 2018

PO / BATCH NO: 038929/5043347

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 45'
 QUANTITY INSPECTED: 45'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000
 THICKNESS RECEIVED: 2.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>QCA-270/12</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>Hact FF 9388306</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	DAS	ENGINEERING SIGNOFF (if required)
INSPECTED BY:	<u>11</u> <u>9-89</u>	SIGNED OFF BY: _____
DATE:	<u>FEB 16 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

SHIP TO

A M CASTLE & COMPANY
4175 ROYAL DRIVE
KENNESAW GA
30144
US

SOLD TO

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110539776	4075	INCLUSION	Serial: 20170527-0110539776	Pg 1 of 3		
CUSTOMER PURCHASE ORDER NO. & ITEM 420822				Constellium ORDER NO. 204509	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA			
ALLOY 7075	CLAD	TEMPER T651	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm			LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH								
CUSTOMER SPECIFICATION AMS QQ-A-250/12A								
PART NUMBER 750616		B/L NUMBER 81380		DATE SHIPPED 05/29/2017				
WT. SHIPPED 7175.000 LB	NO. OF PIECES 000005	GOVT. CONTRACT NO.						
ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS: ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A AMS 4045K AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE ASTM B209-14 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE CMMPO25 REV U CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE								
Load Details								
Package	Nel Lbs	Kg	Lot	Piece	Serial	Parent Lot		
1001519601	1,443.000	654.533	9388505	01				
1001519601	1,442.000	654.080	9388505	02				
1001524140	1,430.000	648.637	9388506	01				
1001524140	1,430.000	648.637	9388506	02				
1001524140	1,430.000	648.637	9388506	03				
Lot: 9388506								
Tensile - Room Temperature (US)								
Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	82.5	82.7	72.5	72.9	13.0	13.0	



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE & COMPANY
4175 ROYAL DRIVE
KENNESAW GA
30144
US

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A M CASTLE

1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE 110539776 4075 INCLUSION Serial:20170527-0110539776 Pg 2 of 3

CUSTOMER PURCHASE ORDER NO. & ITEM 420822					Constellium ORDER NO. 204509	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA			
ALLOY 7075	CLAD	TEMPER T651	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH									
CUSTOMER SPECIFICATION AMS QQ-A-250/12A									
PART NUMBER 750616	B/L NUMBER 81380		DATE SHIPPED 05/29/2017						
WT. SHIPPED 7175.000 LB	NO. OF PIECES 000005	GOVT. CONTRACT NO.							

Steve Good
Steve Good - Laboratory Manager

Tensile - Room Temperature (SI)				Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	569	570	500	503	13.0	13.0	

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.07	0.15	1.51	0.03	2.60	0.22	5.73	0.04	0.01

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

Lot: 9388506

Tensile - Room Temperature (US)				Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	81.8	82.3	72.0	72.8	11.5	12.5	



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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30144
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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

INCLUSION						Serial:20170527-0110539776	Pg 3 of 3
CUSTOMER PURCHASE ORDER NO. & ITEM 420822				Constellium ORDER NO. 204509		CERTIFICATION	
ALLOY 7075	CLAD	TEMPER T651	GAUGE 2 00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH							Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA
CUSTOMER SPECIFICATION AMS QQ-A-250/12A							
PART NUMBER 750616		B/L NUMBER 81380		DATE SHIPPED 05/29/2017			
WT. SHIPPED 7175.000 LB		NO. OF PIECES 000005		GOVT. CONTRACT NO.			
<i>Steve Good</i> Steve Good - Laboratory Manager							

Tensile - Room Temperature (SI)									
Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report	
		Min	Max	Min	Max	Min	Max		
LT	02	564	567	496	502	11.5	12.5		
Chemistry (Actual)									
Core	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
	0.07	0.15	1.51	0.03	2.60	0.22	5.73	0.04	0.01
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER									
All material contained in this lot was cast and manufactured in the USA									
QUALITY TEXTS: AMC CA-15403A R 7									

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT
WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399
WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557

DUNS Number: 090570149; CAGE Code: 1YWLS

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.
"END OF CERTIFICATION"

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
DRAWINGS: 4045
OR ASTM B209

PURCHASE MATERIAL: T-7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
SPECIFICATION:
QQ-A-250/13 OR AMS-QQA-250/13
OR ASME A446 OR A4049
OR ASTM B209

PART NUMBER:

WIBTH | HK

WHERE "THT" = THICKNESS (IN INCHES)
AND "WxWMM" = WIDTH (IN INCHES). OPTIONAL, FOR SPECIFYING CUT PLATE)
EG. 0.063" THICK SHEET # M707ST6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE # M707STCS.063

ANSWER SHEET

B	ADD REF TO PLATE, "TBSI" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17/05
A	NEW ISSUE	RF	10/11/08
REV.	DESCRIPTION	BY	DATE
	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DESIGN	RF	TITLE	
DRAWN	CP	7075-T6 SHEET/PLATE SPEC	
CHECKED	ML	SCALE	
MFG. APPR.	LL	NTS	
APPROVED	WM	COPYRIGHT © 2010 BY DART AEROSPACE LTD NOT TO SCALE. DO NOT USE FOR DESIGN OR ASSEMBLY. USE FOR REFERENCE ONLY.	
DE APPR.	DS	THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE RETURNED UPON REQUEST. IT IS NOT TO BE COPIED OR REPRODUCED EXCEPT AS AUTHORIZED IN THE LICENSE AGREEMENT TO WHICH IT WAS PROVIDED.	
DATE	17.05.05		

REF ID: A1234
2017 JUN 19

DESIGN	RF	DATE	
DRAWN	CP	DART AEROSPACE LTD	
CHECKED	ML	HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.	LL	REV. B	
APPROVED	WM	SHEET 1 OF 1	
DE APPR.	DS	SCALE	
APPROVED DATE	17.05.05	NTS	
7075-T6 SHEET/PLATE SPEC <small>Copyright © 2010 by Dart Aerospace Ltd. Not to be used without written permission. No part of this document may be reproduced or transmitted in whole or in part without written permission. Reproduction, adaptation or translation without prior written permission is illegal.</small>			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075-T73B4.000X4.000
 DATE: FEB 16 2018

PO / BATCH NO.: 038929/5043346

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 48"
 QUANTITY INSPECTED: 48"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .04000
 THICKNESS RECEIVED: .04000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<u>N</u>	
CORRECT FINISH	<u>Y</u>	N	
CORROSION	Y	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	N	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u>	N	<i>Ams-C-2A-250</i>
CORRECT THICKNESS	<u>Y</u>	N	
PHOTO REQUIRED	<u>Y</u>	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	N	<i>Hertuff 2370006.5 - 24507605</i>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u>	N	
CORRECT M# ON THE MATERIAL	<u>Y</u>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>DAS</u> <u>1</u>	SIGNED OFF BY:	
DATE:	<u>9-8</u> <u>FEB 16 2018</u>	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. A
DATE		M7075T73B	SHEET 1 OF 1
01.06.08		TITLE	SCALE
		7075-T73 BAR	NTS
A	01.06.08	NEW ISSUE	

PURCHASE MATERIAL: 7075-T73 (OR 7075-T7351/T73510/T73511) BAR
PER AMS-QQ-A-200/11 OR AMS-QQ-A-225/9 (AMS 4124)
OR AMS-QQ-A-250/12 (AMS 4078)

part

PART NUMBER: M7075T73B | T.TTT | X | W.WWW | WHERE T.TTT = THICKNESS (IN INCHES)
| THICK | | WIDTH | W.WWW = WIDTH (IN INCHES)

EG. 2.5" X 3.25" BAR = M7075T73B2.500 X 03.250

RELEASED
for de 15

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SHIP TO:
A M CASTLE METALS
4175 ROYAL DRIVE, SUITE 600
KENNESAW, GA 30144

SOLD TO:
AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

KAISER **ALUMINUM**

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4470032

CUSTOMER PO NUMBER:	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RUN/LOAD:	GOVT CONTRACT NUMBER:		
429644-1		752132	103978/17			
KAISER ORDER NO:		SHIP DATE:	ALLOY:	CLAD:	TEMPER:	PRODUCT DESCRIPTION:
1239797-1		13-JUL-2017	7075	BARE	T7351	KaiserSelect Plate
WEIGHT SHIPPED:	QUANTITY:	TRUCK B/L #:	GAUGE:	DIAMETER/WIDTH:	LENGTH:	
5690 LB	2 PCS EST.	2087664	4.6000 IN (101.6000 MM)	48.500 IN (1231.9 MM)	144.500 IN (3670.3 MM)	

MHU 2127812: LOT 229000B5: 1 pieces;
MHU 2127613: LOT 229000B5: 1 pieces;

Certified Specifications

AMS 4078/RevJ
ASTM B 209/Rev14
BSS 7055/RevB
DPS 4.713/RevAK
MMS 159/RevT

AMS-QQ-A-250/12/RevA
ASTM B 594/Rev13
CMMR 025/RevV
GAMPS 9101/RevB/AmdSCN1
PS 21211/RevP

AMS-STD-2154/RevC
BAC 5439/RevJ
CSTI 006/RevE
GSS16100/RevG/Amd1

Test Code: 4297

Lot: 229000B5

Cast 476

Drop 16

Test Results
Ingot 5

Melted in USA

(ASTM E88B557)

(EN 2002-1)

Tensile: Temper
T7351

Dir / # Tests
LT / 3 (Min:Max)

Ultimate KSI (MPA)
63.7 : 64.6
(439 : 445)

Yield KSI (MPA)
50.4 : 51.8
(348 : 357)

Elongation %
10.6 : 10.8

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :
(MS/M) :

41.3 Min
24.0 Min

41.6 Max
24.1 Max

(ASTM E1251)

Chemistry:	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.17	1.5	0.03	2.4	0.20	5.7	0.03	0.01	0.02	TOT 0.05



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4470032

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15
Aluminum Remainder												

ORDER COMMENTS

AMC CA-15413E R 6

TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. The material thicknesses, outside specification limits, mechanical properties are as shown and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
Was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
has been thermally processed in compliance with AMS 2772, where applicable.
is mercury free, with the limits of detection of ASTM E1715 ($<1\text{ppm}$).
is in compliance with RoHS 2, European Union Directive 2011/65/EU.
is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
is free of Conflict Minerals, as defined in Section 152 of the Dodd-Frank Act.
is free of lead solder.
Meets the reporting requirements of ENIG204, "Op 3.1."
Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be construed as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE & COMPANY

4175 ROYAL DRIVE
KENNESAW GA
30144
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A M CASTLE

1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

INCLUSION						Serial: 20170527-0110539776	Pg 1 of 3				
CUSTOMER PURCHASE ORDER NO. & ITEM				Constellium ORDER NO.							
420822				204509							
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS QQ-A-250/12A											
PART NUMBER 750616			B/L NUMBER 81380		DATE SHIPPED 05/29/2017						
WT. SHIPPED 7175.000 LB		NO. OF PIECES 000005		GOVT. CONTRACT NO.							
CERTIFICATION Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination. Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA											

Steve Good - Laboratory Manager

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A
 AMS 4045K
 AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
 ASTM B209-14
 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
 CMMPO25 REV U
 CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
 DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
 GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
 PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001519601	1,443.000	654.533	9388505	01		
1001519601	1,442.000	654.080	9388505	02		
1001524140	1,430.000	648.637	9388506	01		
1001524140	1,430.000	648.637	9388506	02		
1001524140	1,430.000	648.637	9388506	03		

Lot: 9388505

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	82.5	82.7	72.5	72.9	13.0	13.0	



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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1420 KENSINGTON ROAD, SUITE 220
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 US

A M CASTLE	110539776	4075	INCLUSION	Serial: 20170527-0110539776	Pg 2 of 3																								
CUSTOMER PURCHASE ORDER NO. & ITEM 420822			Constellium ORDER NO. 204509																										
ALLOY 7075	CLAD	TEMPER T651	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm																								
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH																													
CUSTOMER SPECIFICATION AMS QQ-A-250/12A																													
PART NUMBER 750616		B/L NUMBER 81380		DATE SHIPPED 05/29/2017																									
WT. SHIPPED 7175.000 LB	NO. OF PIECES 000005	GOVT. CONTRACT NO.																											
Tensile - Room Temperature (SI) <table border="1"> <thead> <tr> <th colspan="3">Ultimate (N/MM²)</th> <th colspan="2">Yield (N/MM²)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>569</td> <td>570</td> <td>500</td> <td>503</td> <td>13.0</td> <td>13.0</td> </tr> </tbody> </table>						Ultimate (N/MM ²)			Yield (N/MM ²)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max	LT	02	569	570	500	503	13.0	13.0
Ultimate (N/MM ²)			Yield (N/MM ²)		Elongation (%)		Report																						
Direction	Tests	Min	Max	Min	Max	Min	Max																						
LT	02	569	570	500	503	13.0	13.0																						
Chemistry (Actual) <table border="1"> <thead> <tr> <th>Core</th> <th>Si</th> <th>Fe</th> <th>Cu</th> <th>Mn</th> <th>Mg</th> <th>Cr</th> <th>Zn</th> <th>Ti</th> <th>Zr</th> </tr> </thead> <tbody> <tr> <td></td> <td>0.07</td> <td>0.15</td> <td>1.51</td> <td>0.03</td> <td>2.60</td> <td>0.22</td> <td>5.73</td> <td>0.04</td> <td>0.01</td> </tr> </tbody> </table>						Core	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr		0.07	0.15	1.51	0.03	2.60	0.22	5.73	0.04	0.01				
Core	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr																				
	0.07	0.15	1.51	0.03	2.60	0.22	5.73	0.04	0.01																				
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																													
All material contained in this lot was cast and manufactured in the USA Lot: 9388506																													
Tensile - Room Temperature (US) <table border="1"> <thead> <tr> <th colspan="3">Ultimate (KSI)</th> <th colspan="2">Yield (KSI)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>81.8</td> <td>82.3</td> <td>72.0</td> <td>72.8</td> <td>11.5</td> <td>12.5</td> </tr> </tbody> </table>						Ultimate (KSI)			Yield (KSI)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max	LT	02	81.8	82.3	72.0	72.8	11.5	12.5
Ultimate (KSI)			Yield (KSI)		Elongation (%)		Report																						
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LT	02	81.8	82.3	72.0	72.8	11.5	12.5																						

CERTIFICATION
 "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."
 Constellium Rolled Products Ravenswood, LLC
 859 Century Road
 P.O. BOX 68
 RAVENSWOOD, WV 26164 USA

Steve Good - Laboratory Manager

SHIP TO:
A M CASTLE & CO
3050 SOUTH HYDRAULIC
WICHITA, KS 67216

KAISER
ALUMINUM

Trentwood Works - Spokane, WA 99215
 Phone: (800) 367-2586

SOLD TO:
AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CERTIFIED TEST REPORT

Serial Number
 4487066

CUSTOMER PO NUMBER: 435954-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 752188	SHIP RUN/LOAD: 104109/21	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1243502-1	SHIP DATE: 24-NOV-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 3602 LB	QUANTITY: 5 PCS EST.	TRUCK B/L #: 2070342	GAUGE: 1.0000 IN (25.4000 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)

MHU 2164380: LOT 705435B6: 5 pieces;

Certified Specifications

AMS 4045/RevL

AMS-QQ-A-250/12/RevA

AMS-STD-2154/RevC

ASTM B 209/Rev14

ASTM B 594/Rev13

BAC 5439/RevJ

BSS 7055/RevB

CMMP 025/RevV

CTI 006/RevE

DPS 4.713/RevAK

GAMPS 9101/RevB/AmdSCN1

GSS16100/RevG/Amd1

PS 21211/RevP

Test Code: 1512

Lot: 705435B6 Cast 540

Test Results
 Drop 64 Ingot 2

Parent Lot: 243261B5

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	80.6 : 81.3 (556 : 561)	71.7 : 72.0 (494 : 496)	13.2 : 13.6

(ASTM E1251)

Chemistry:	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.17	1.4	0.03	2.5	0.19	5.7	0.03	0.01	0.01	TOT 0.04

ALLOY LIMITS

	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05

MAX(wt%) 0.40 0.50 2.0 0.30 2.9 0.28 6.1 0.20 0.05 0.05 TOT 0.15

Aluminum Remainder

ORDER COMMENTS
 AMC CA-15403 R 8



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

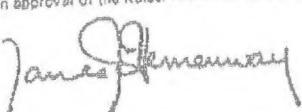
Serial Number
4487066

TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:
• has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
• All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
• was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
• has been thermally processed in compliance with AMS 2772, where applicable.
• is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
• is in compliance with RoHS 2, European Union Directive 2011/65/EU.
• is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
• is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
• is free of weld repair.
• meets the reporting requirements of EN10204, Type 3.1.
Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.


JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

